

Fig.1

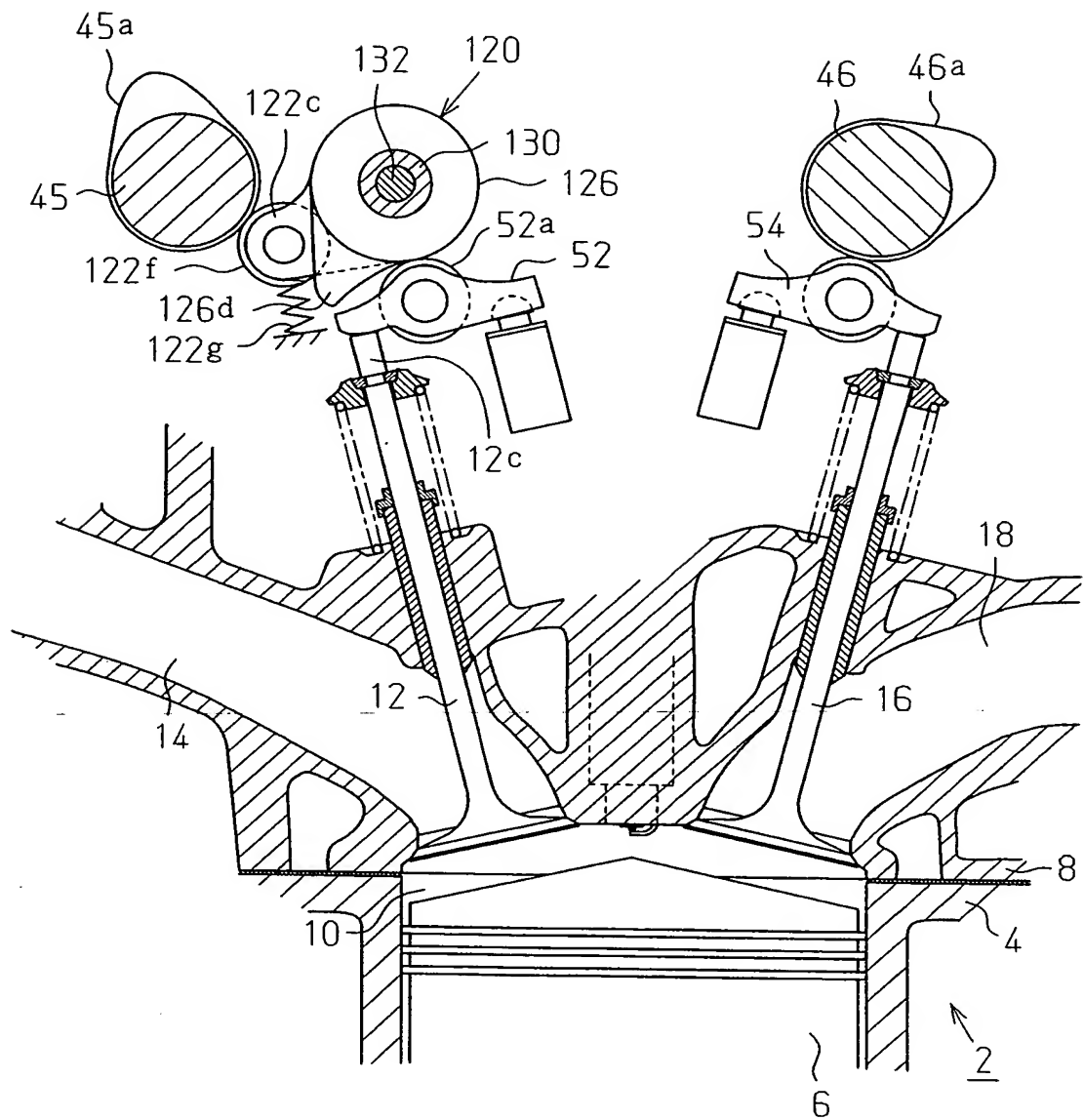


Fig. 2

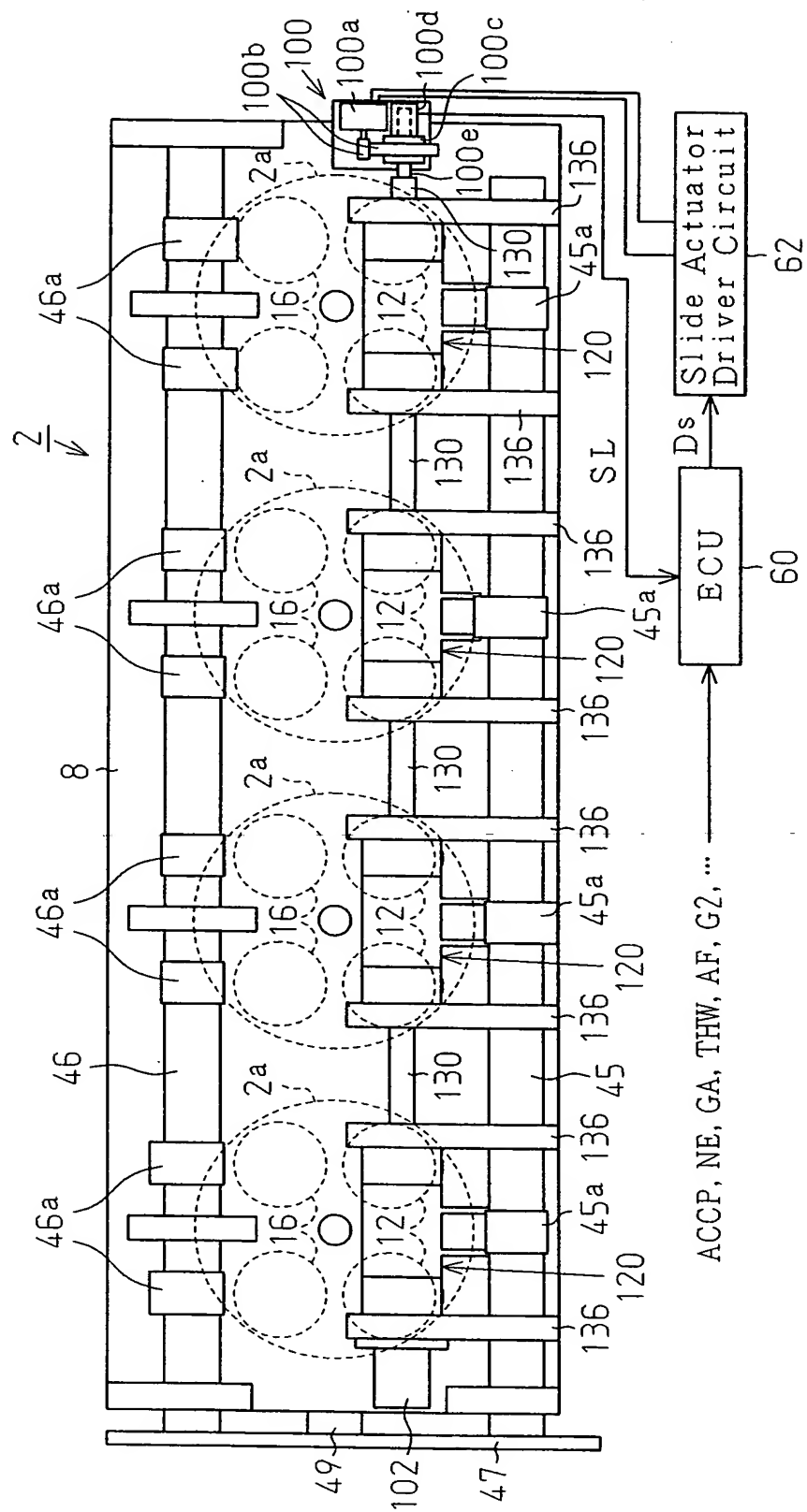


Fig.3

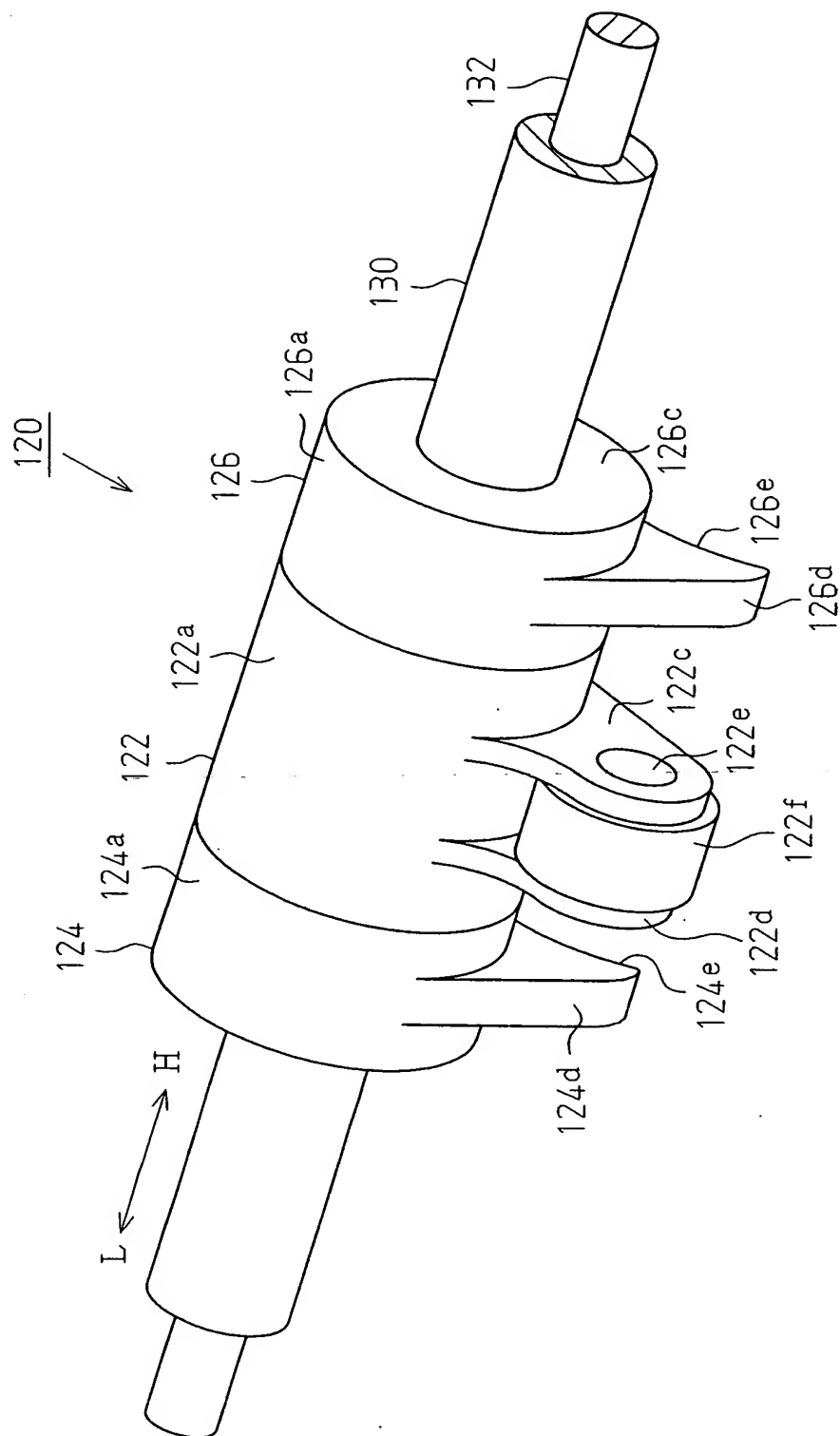


Fig.4 (A)

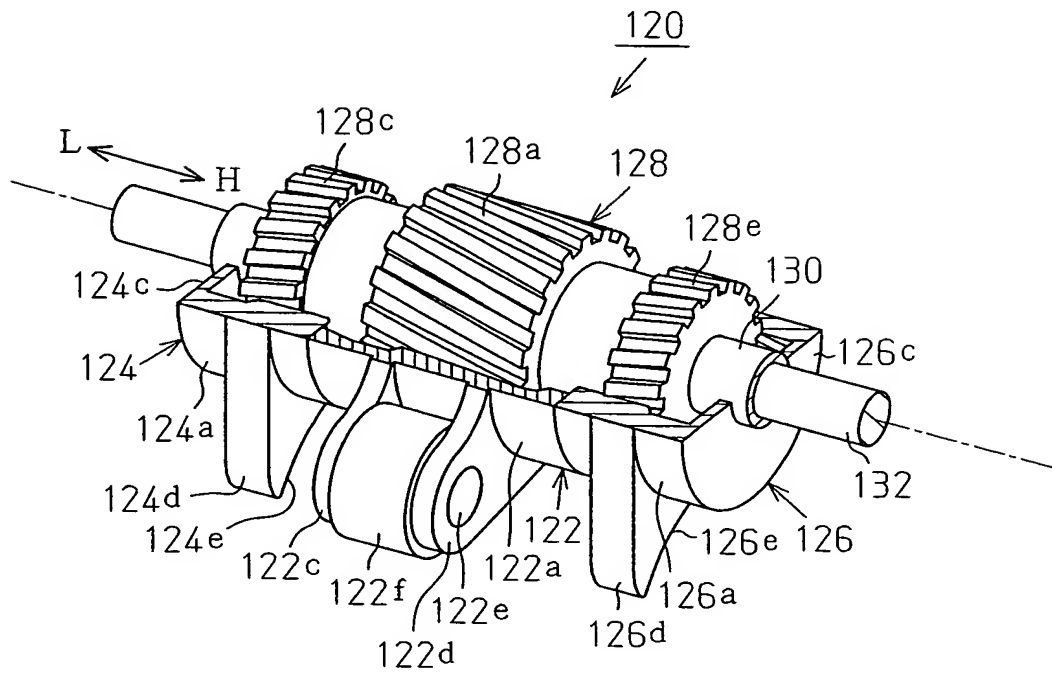


Fig.4 (B)

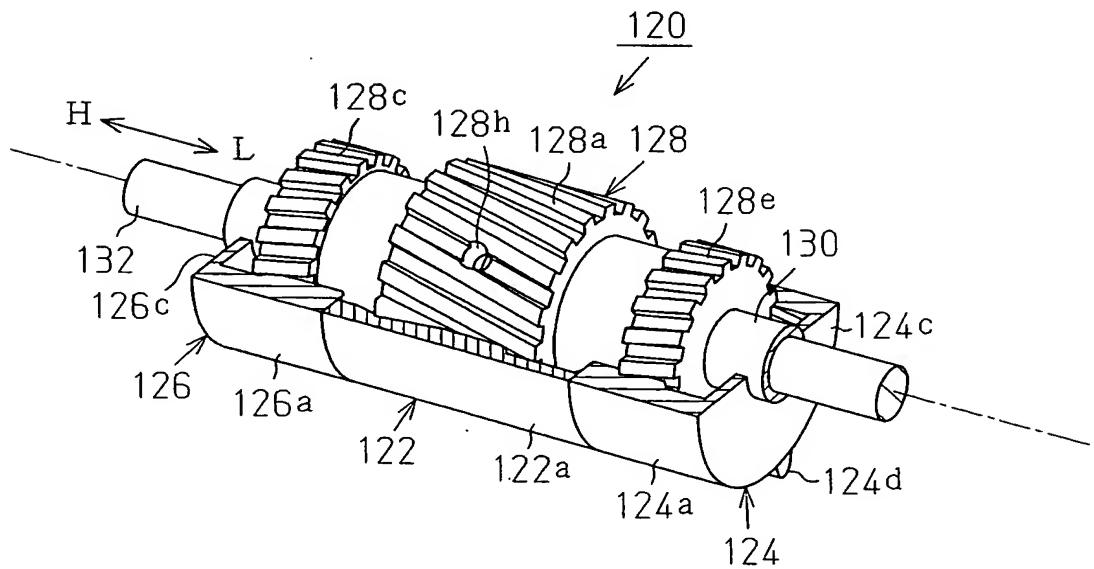


Fig.5

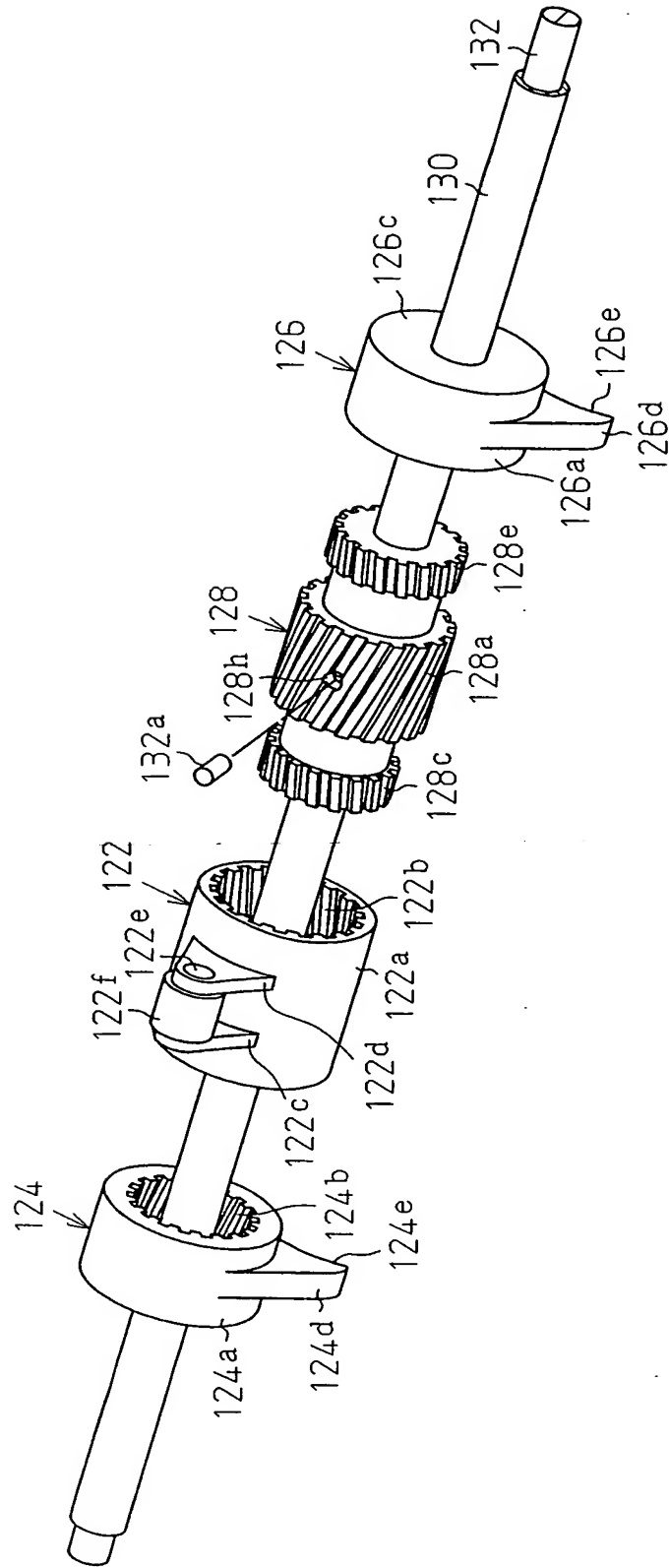


Fig.6 (A)

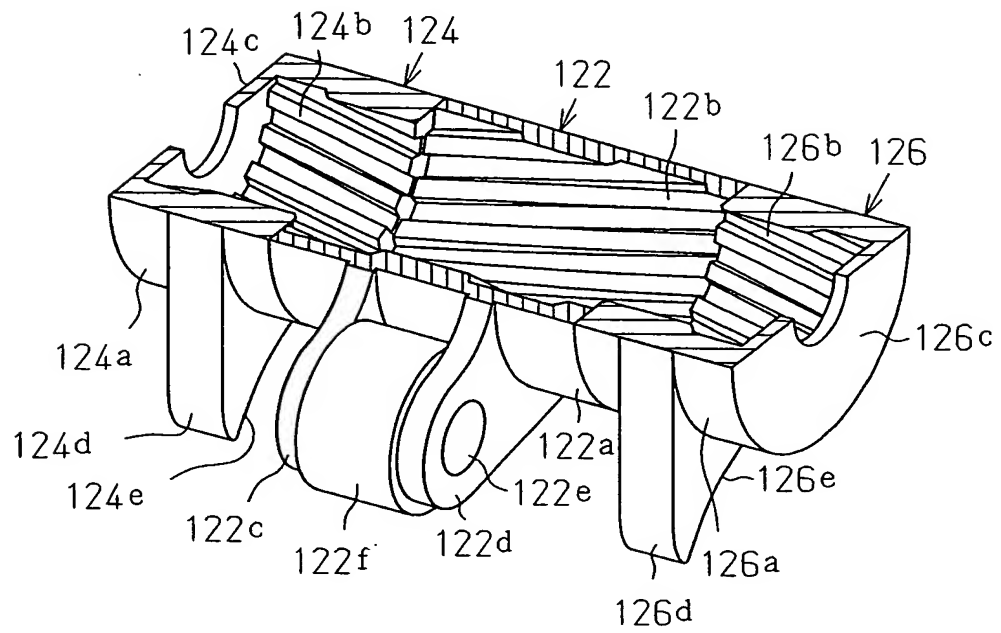


Fig.6 (B)

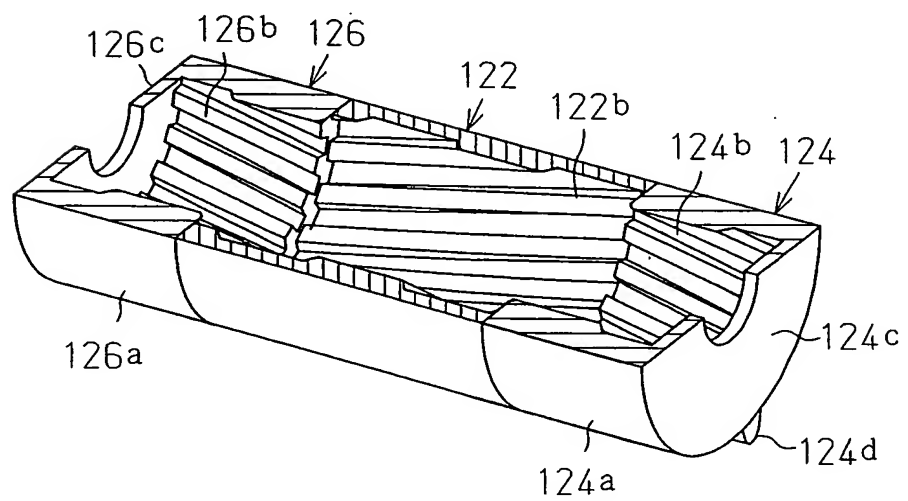


Fig.7 (A)

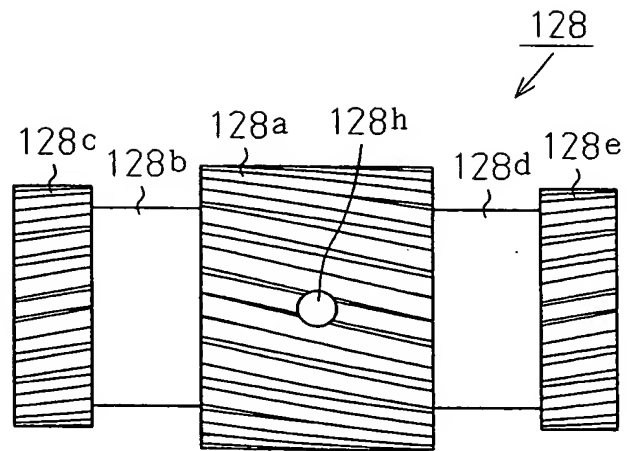


Fig.7 (B)

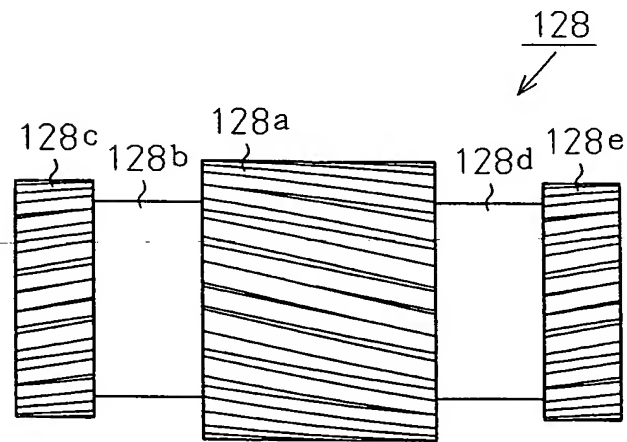


Fig.7 (C)

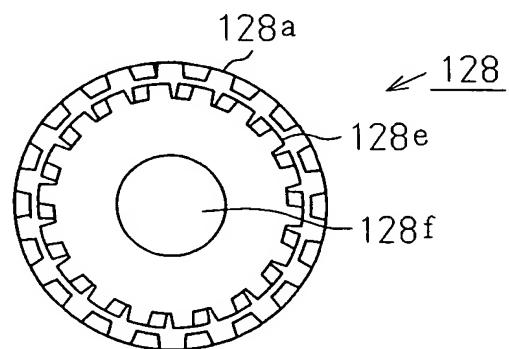


Fig.8

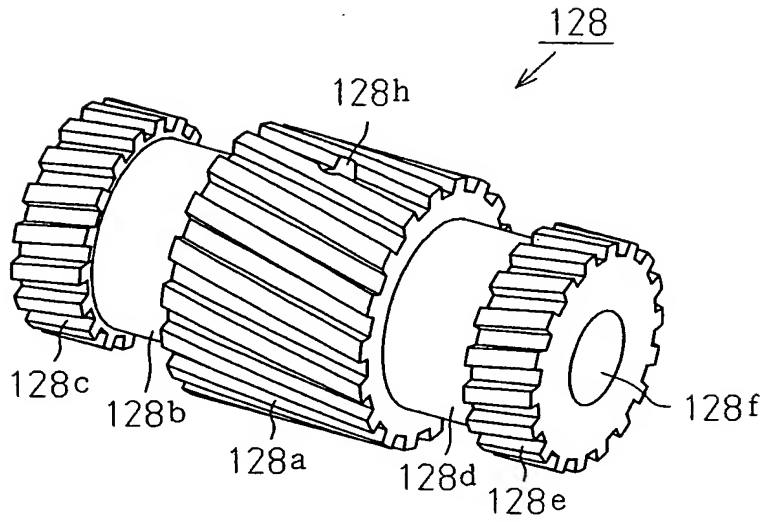


Fig.9

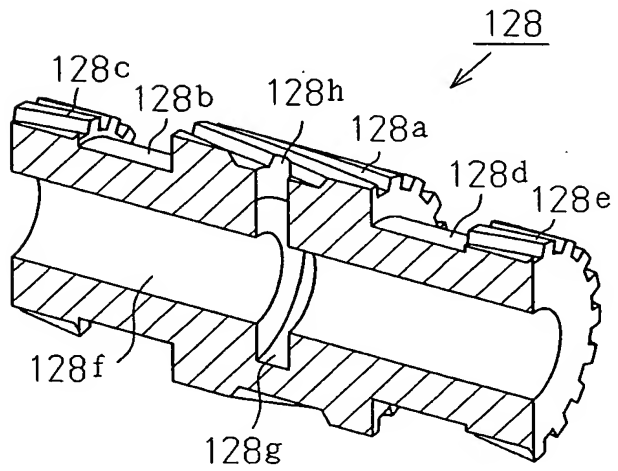


Fig.10 (A)

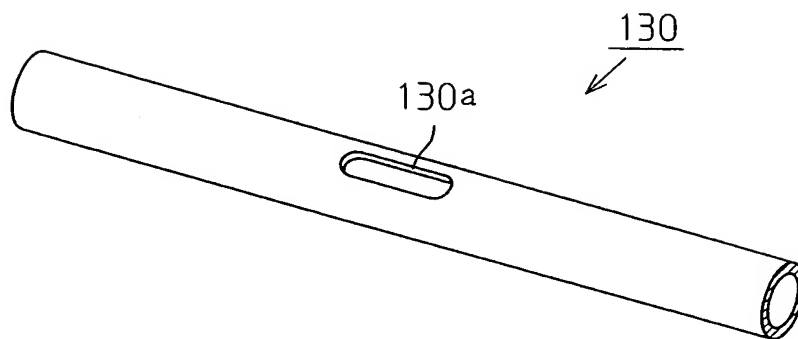


Fig.10 (B)

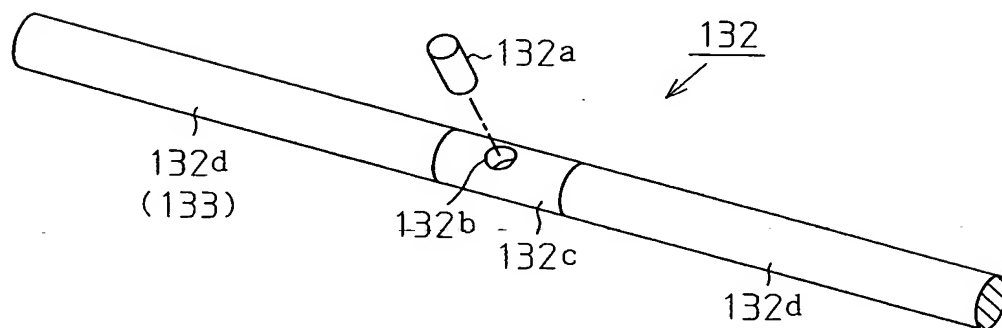


Fig.10 (C)

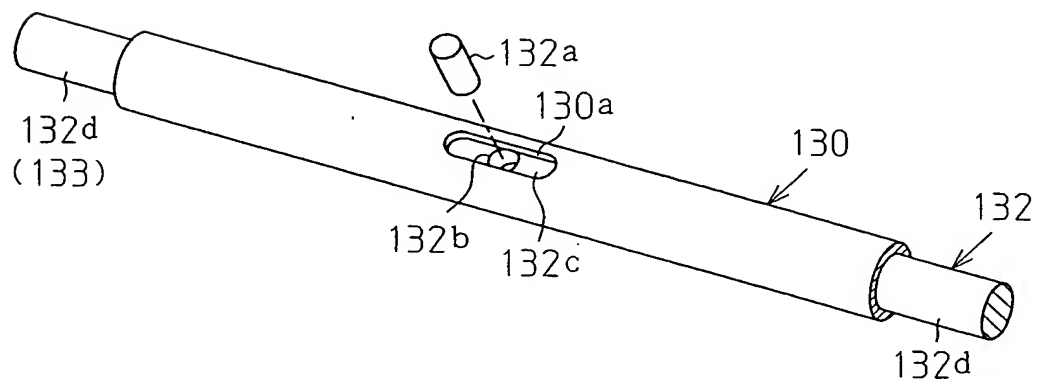


Fig.11

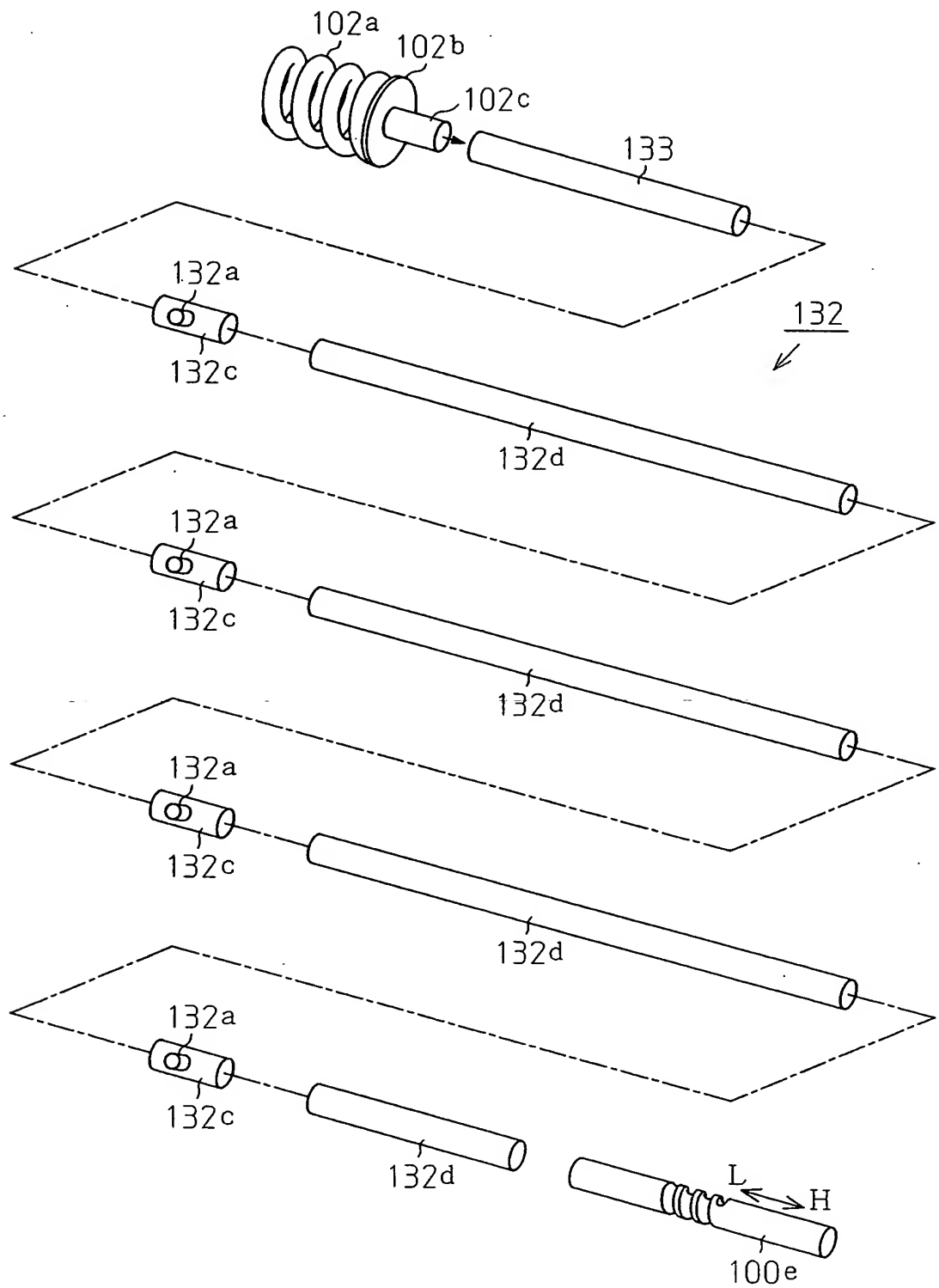


Fig.1 2

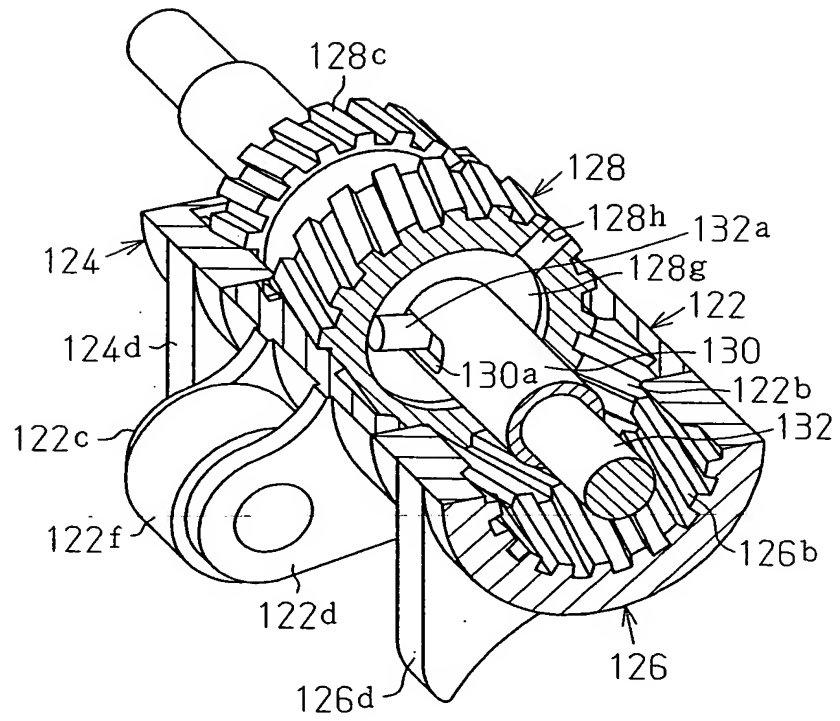


Fig.13 (A)

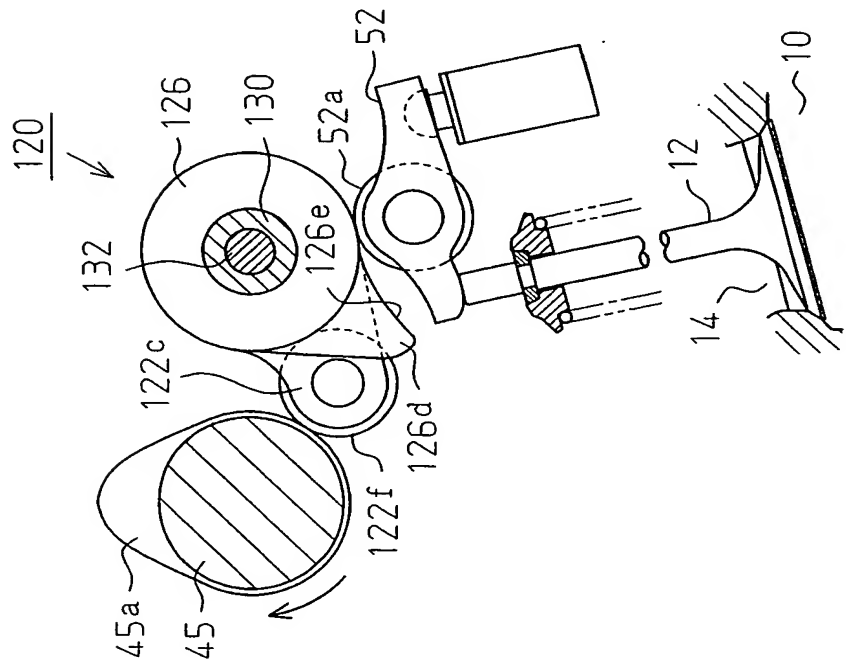


Fig.13 (B)

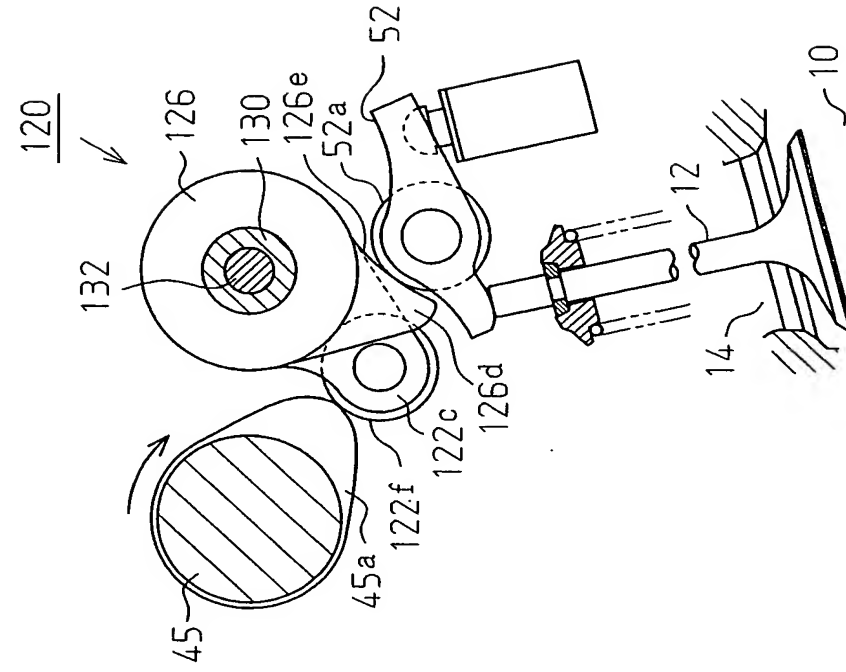


Fig.14(B)

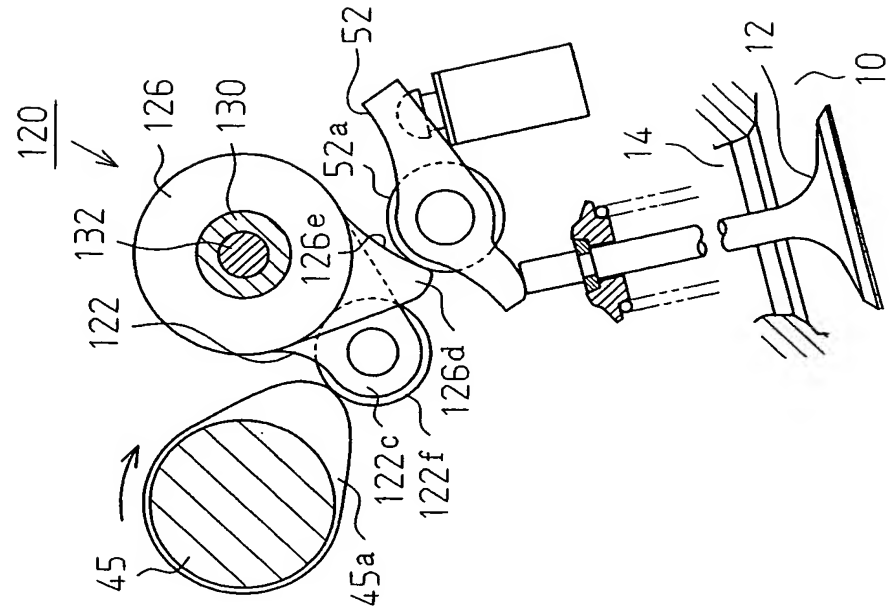


Fig.15

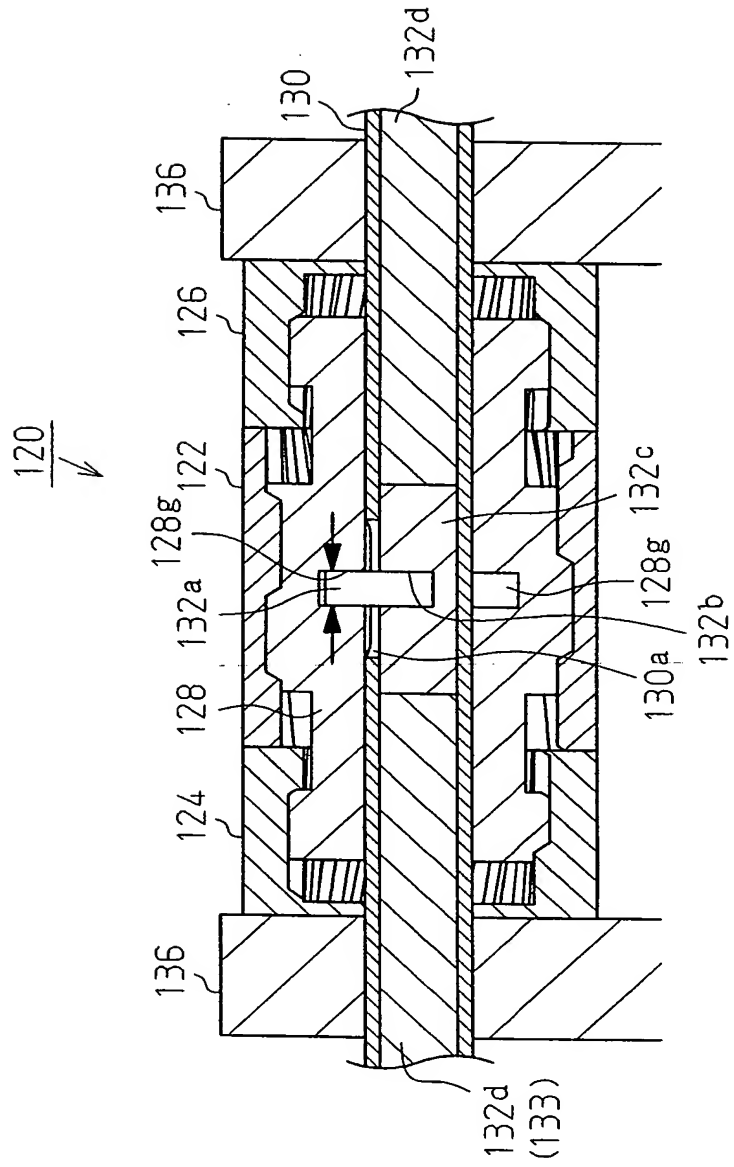


Fig. 16

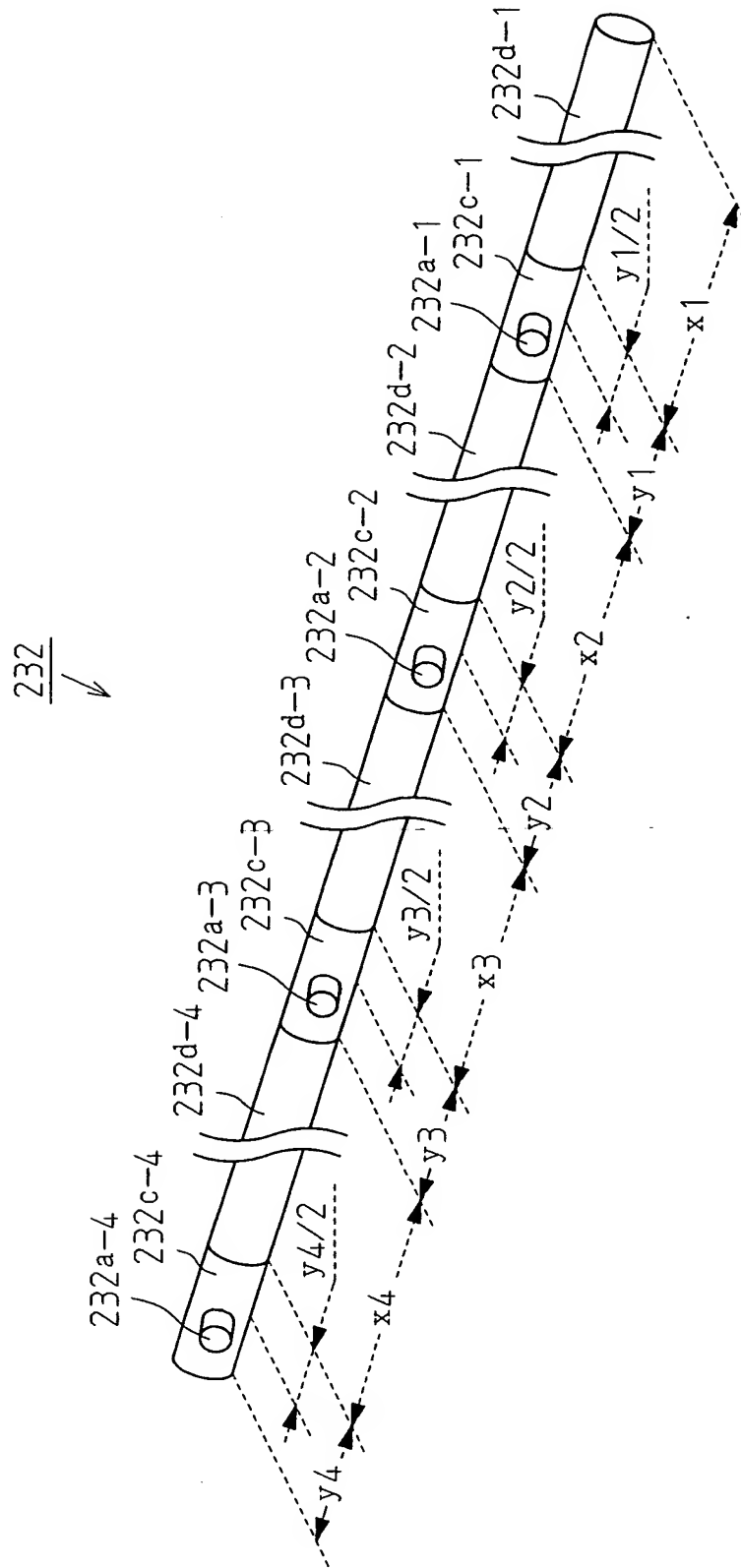


Fig.17

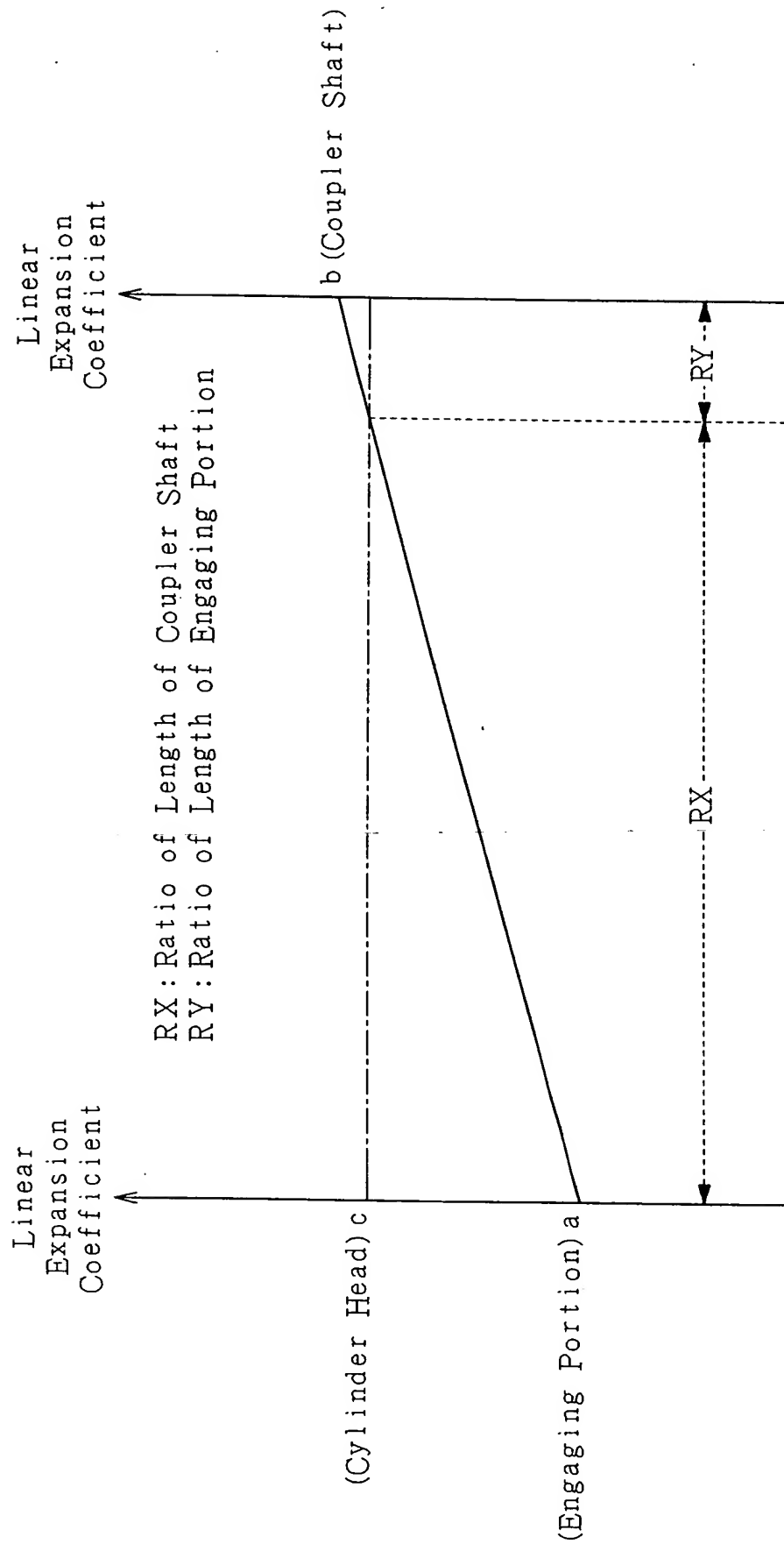


Fig.18 (A)

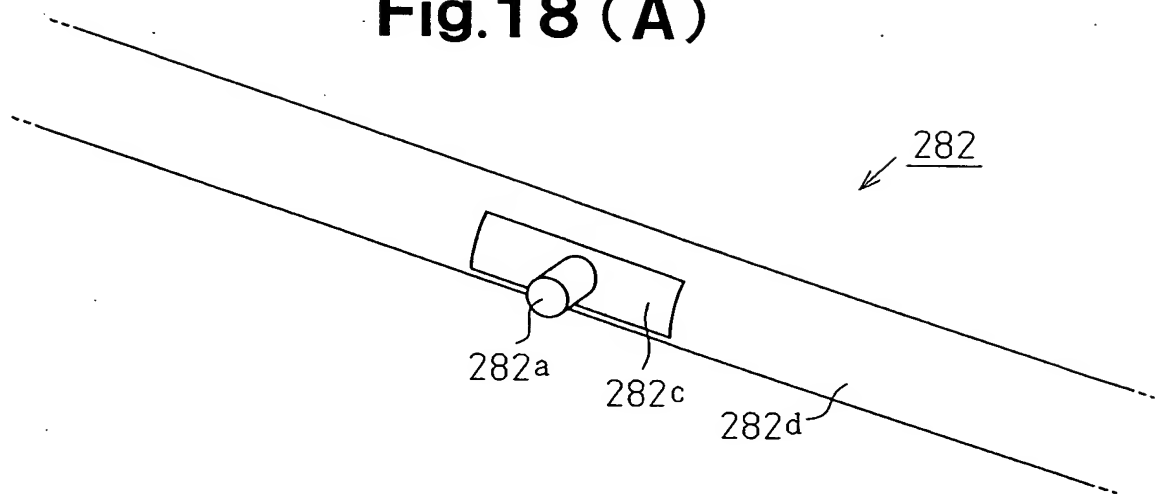


Fig.18 (B)

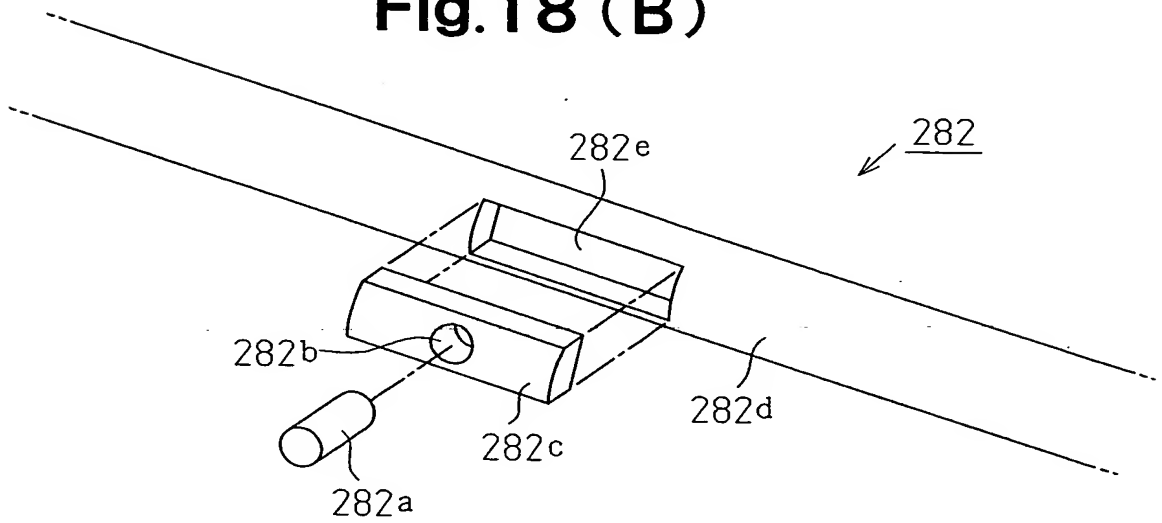


Fig.19

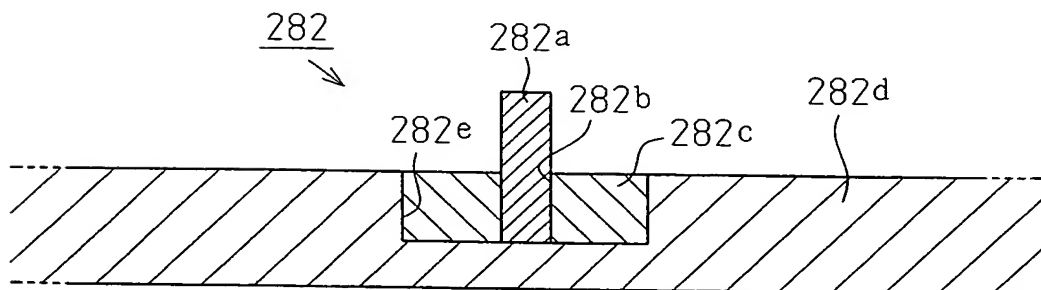


Fig.20

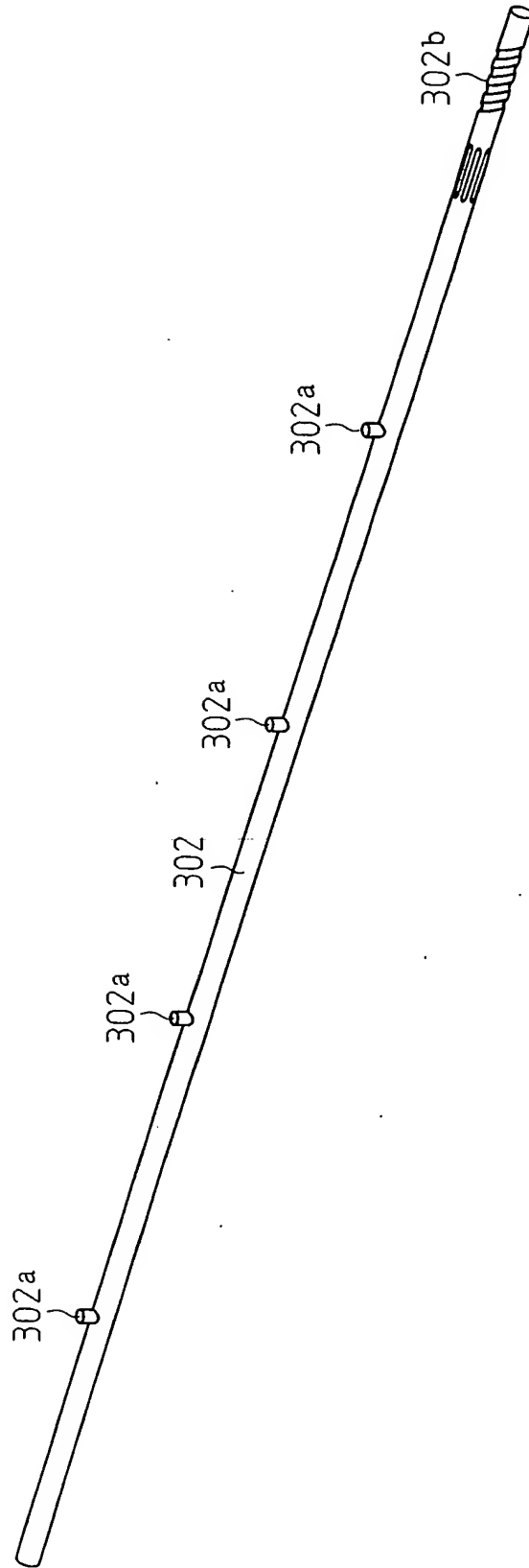
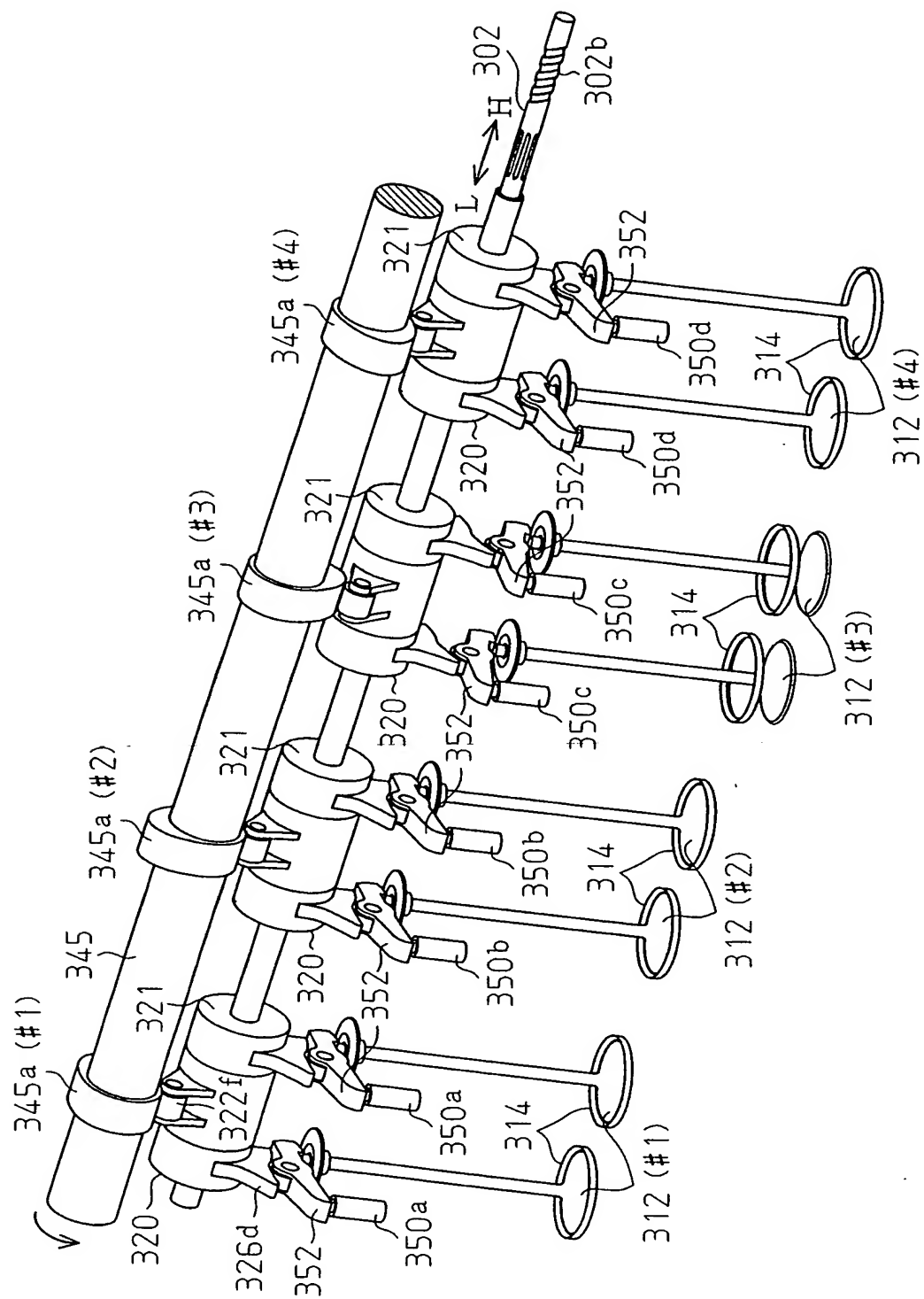
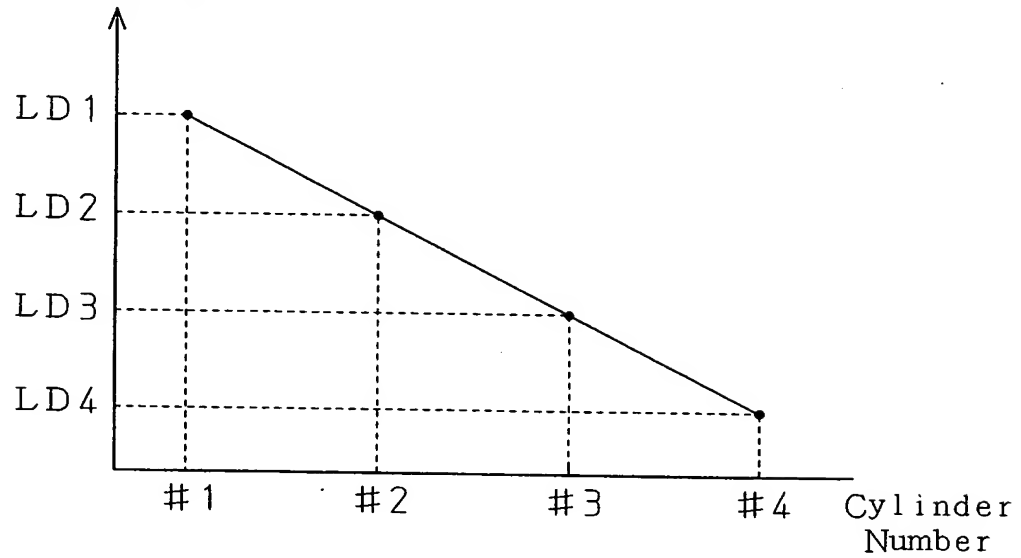


Fig. 21



Leak Down
Property Value

Fig.22



[When Engine is Cold]
Amount of Increase
in Valve Duration Angle
and Lift due to Difference
in Thermal Expansion Coefficient

Fig.23 (A)

Amount of Decrease
in Valve Duration Angle
and Lift due to Leak Down

Fig.23 (B)

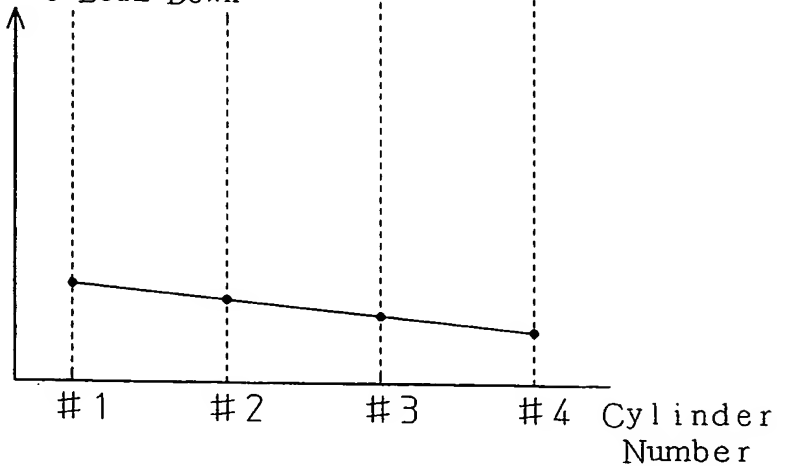
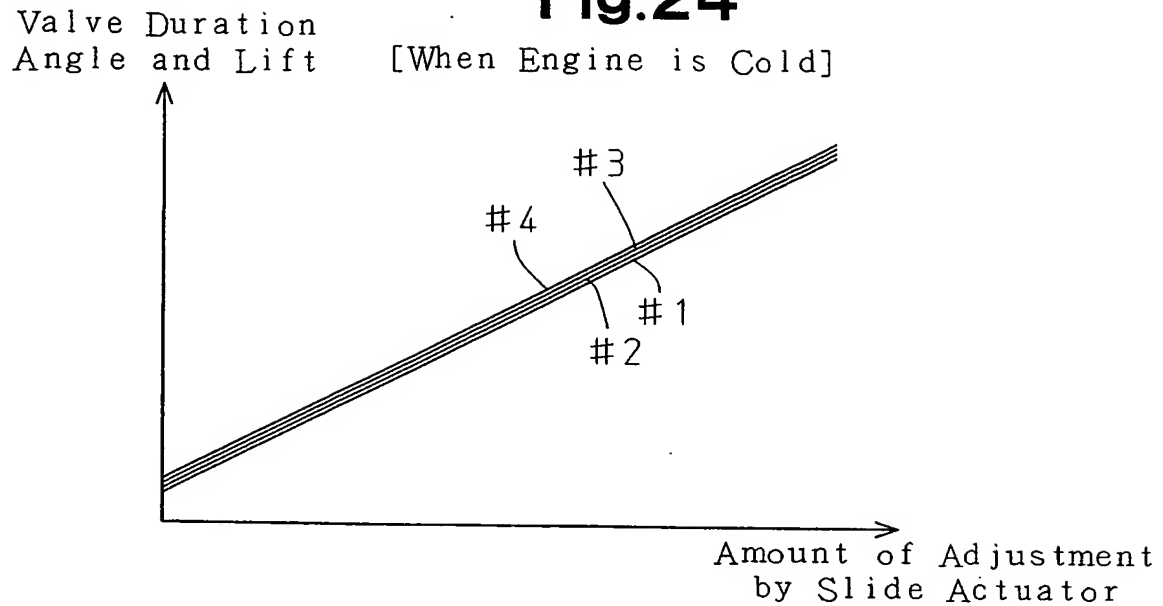


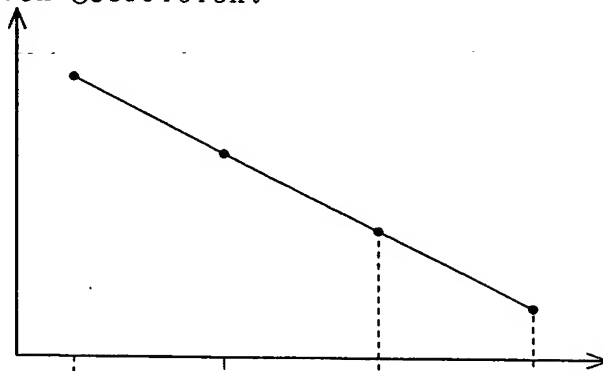
Fig.24



[After Engine is Warmed Up]

Amount of Increase in Valve Duration Angle and Lift due to Difference in Thermal Expansion Coefficient

Fig.25 (A)



Amount of Decrease in Valve Duration Angle and Lift due to Leak Down

Fig.25 (B)

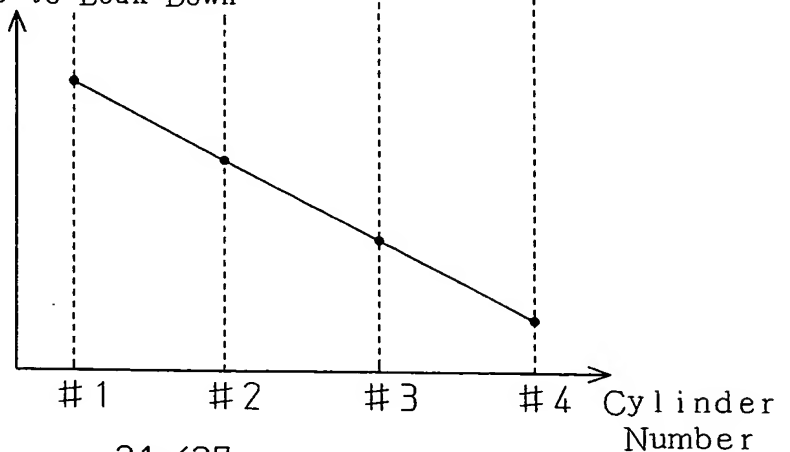


Fig.26

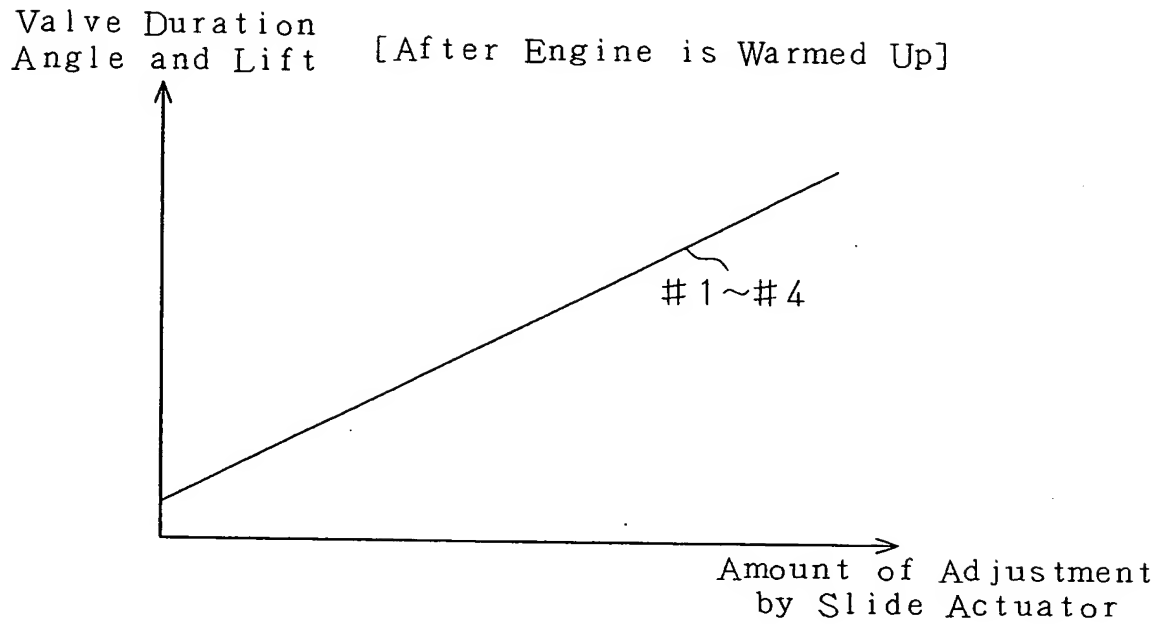


Fig.27

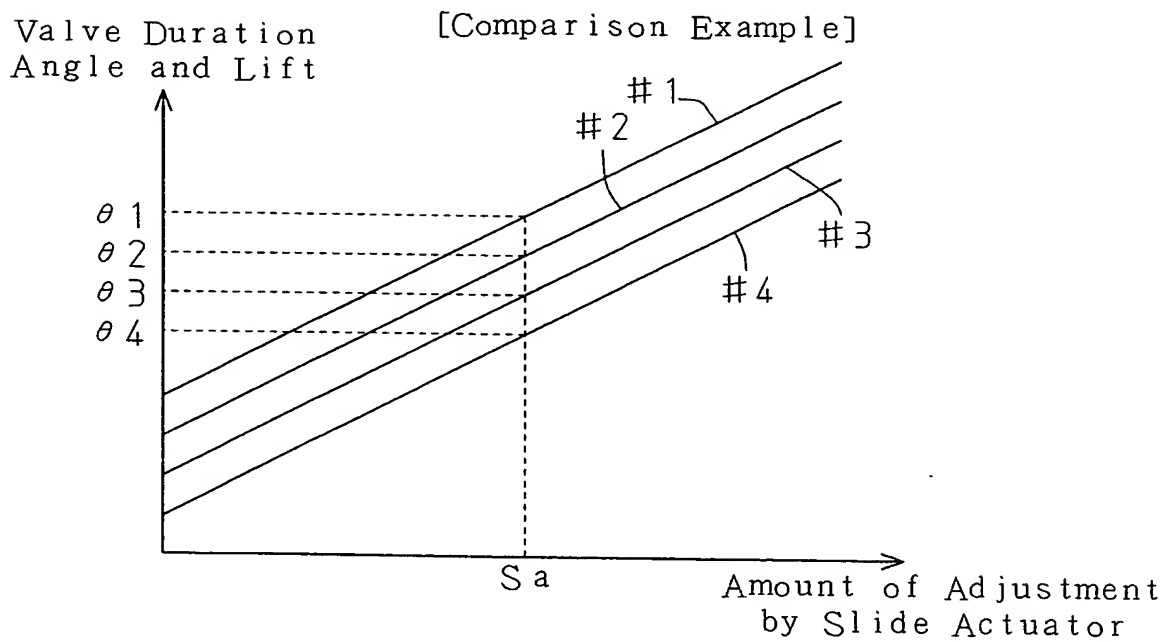


Fig.28

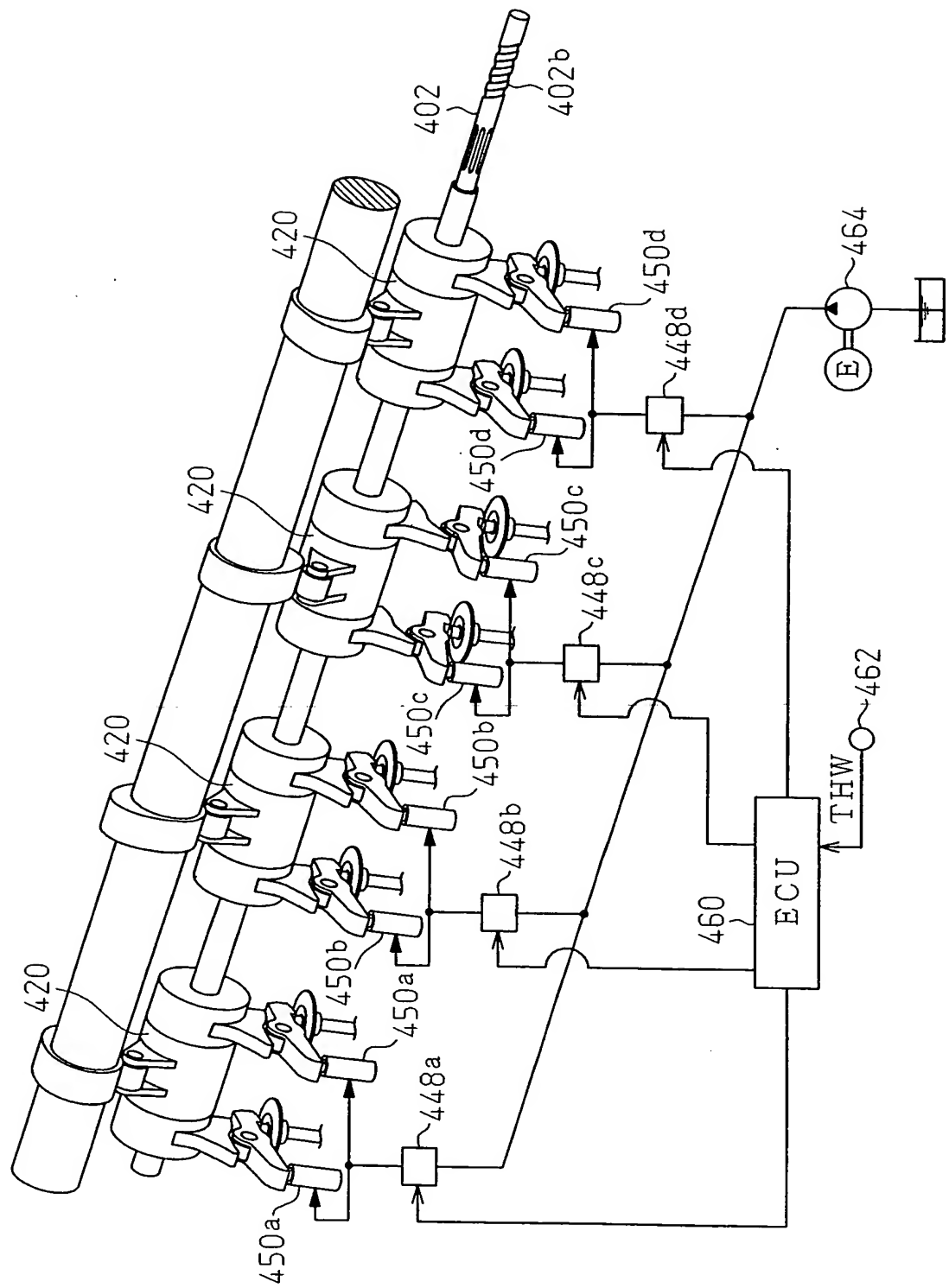


Fig.29

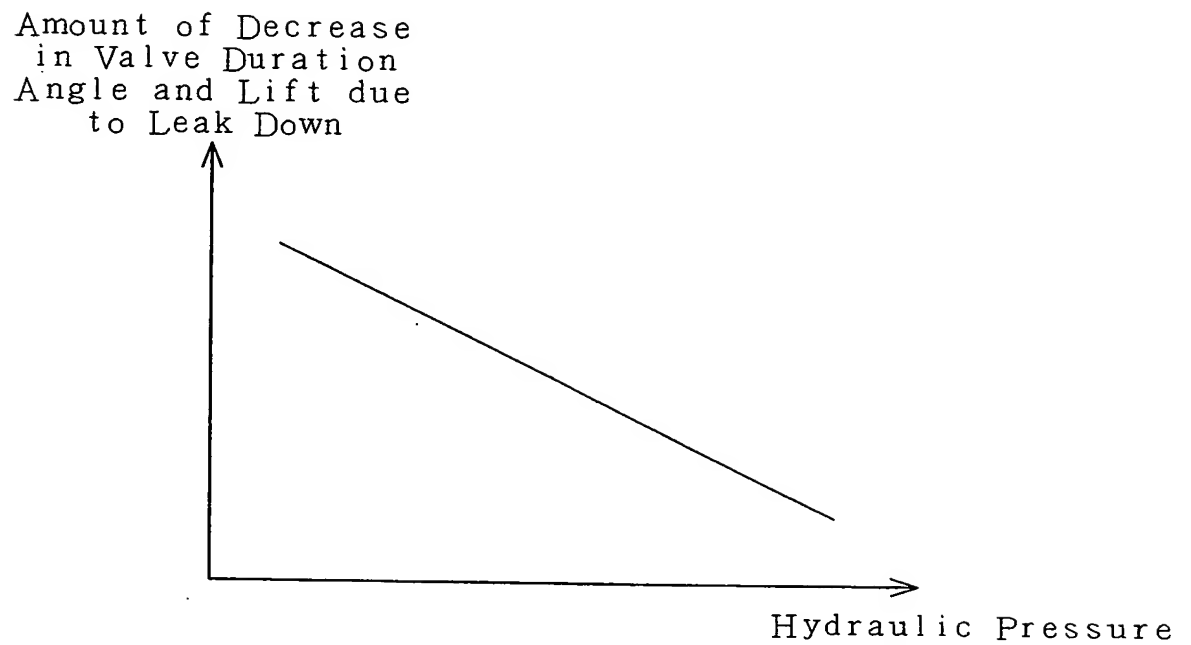


Fig.30

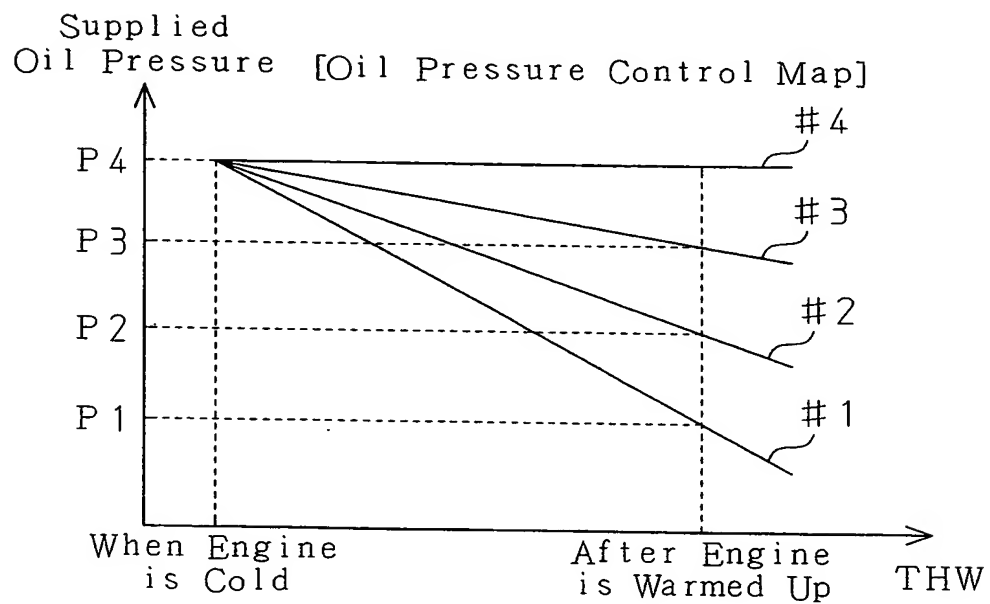


Fig.31

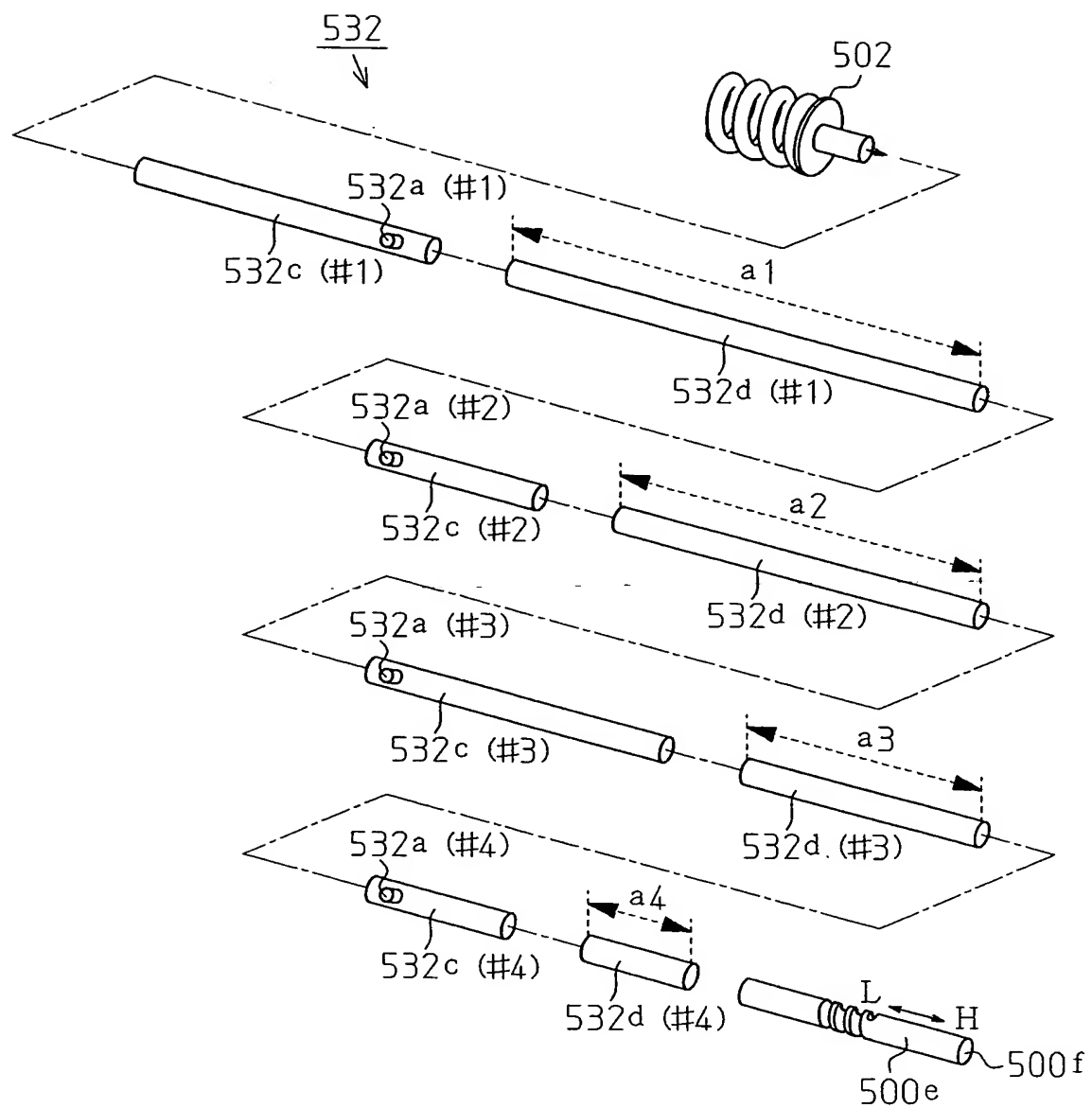


Fig.32

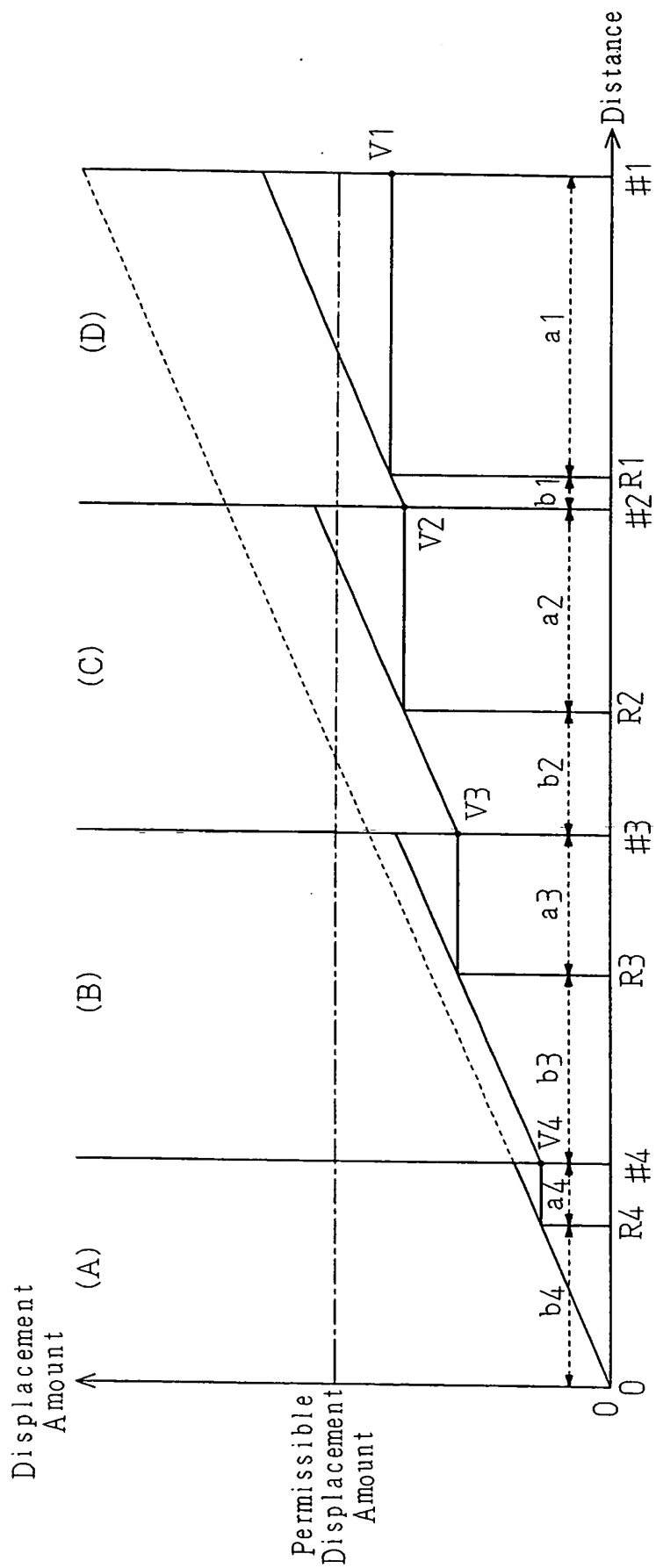


Fig.33

